

# Final Project Report

**Project Title:** Calculating Family Expenses Using ServiceNow

## 1. INTRODUCTION

### 1.1 Project Overview

The project "Calculating Family Expenses Using ServiceNow" is designed to help families manage and monitor their daily expenses through an automated digital platform. The system allows users to record expenses, categorize spending, and view summarized expense reports for better budgeting.

### 1.2 Purpose

The purpose of the project is to replace manual expense tracking with an automated system that improves financial visibility, budgeting accuracy, and spending control.

## 2. IDEATION PHASE

### 2.1 Problem Statement

Families often track expenses manually or across multiple tools, resulting in inaccurate budgeting and overspending. A centralized automated system is required to track expenses efficiently.

### 2.2 Empathy Map Canvas

Users need a simple system to enter expenses quickly, view summaries easily, and understand spending patterns to improve financial decisions.

### 2.3 Brainstorming

Ideas generated include daily expense entry, expense categorization, automatic calculation, monthly reports, dashboards, and shared family access.

## 3. REQUIREMENT ANALYSIS

### 3.1 Customer Journey Map

Users log in, enter daily expenses, view expense summaries, and analyze reports for budgeting decisions.

### **3.2 Solution Requirement**

- Expense entry form
- Automatic expense calculation
- Expense data storage
- Reports and dashboards
- Multi-user access

### **3.3 Data Flow Diagram**

Expense data flows from user input forms to expense tables, which are processed through business rules to generate reports and summaries.

### **3.4 Technology Stack**

- ServiceNow Platform
- App Engine Studio
- Business Rules
- Reports & Dashboards

## **4. PROJECT DESIGN**

### **4.1 Problem Solution Fit**

The solution directly addresses difficulties in tracking and analyzing expenses manually.

### **4.2 Proposed Solution**

A ServiceNow application is created to store daily expenses and automatically update expense summaries using business rules.

### **4.3 Solution Architecture**

Custom tables store expense data, relationships connect daily expenses with summaries, and automated rules calculate totals.

## **5. PROJECT PLANNING & SCHEDULING**

### **5.1 Project Planning**

Project phases included ideation, requirement analysis, design, development, testing, and documentation.

## **6. FUNCTIONAL AND PERFORMANCE TESTING**

### **6.1 Performance Testing**

Expense entries were tested to ensure totals updated correctly and reports displayed accurate information.

## **7. RESULTS**

### **7.1 Output Screenshots**

Screenshots show expense entry forms, daily expense lists, and summary reports generated by the system.

## **8. ADVANTAGES & DISADVANTAGES**

### **Advantages:**

- Easy expense tracking
- Automated calculations
- Better budgeting support
- Financial transparency

### **Disadvantages:**

- Requires initial setup in ServiceNow
- Depends on accurate data entry

## **9. CONCLUSION**

The project successfully demonstrates how ServiceNow can be used to automate family expense tracking, improving budgeting and financial management.

## **10. FUTURE SCOPE**

Future improvements may include mobile access, expense alerts, recurring expense automation, and advanced financial analytics.

## **11. APPENDIX**

Source Code: Available in ServiceNow application update set.

Dataset Link: Expense data entered manually for testing.

GitHub & Project Demo Link: To be added after repository submission.